

ii. determining the detectable signal from Reactant* in the complex (sample value), and

iii. obtaining the amount of analyte in the sample by comparing the sample value with one or more calibrator values, each of which corresponds to a standard amount of analyte,

[characterized in that] wherein before the determination of the calibrator value, either (i) the calibrator or (ii) a binder for the calibrator has been bound to a matrix, and when a binder for the calibrator has been bound to the matrix, calibrator is added or calibrator predeposited in the matrix is released at the determination of calibrator value, and [that] wherein the matrix is insoluble in the liquid medium in which binding of Reactant* to the calibrator occurs.

Claim 2, line 1, replace "characterized in that" with --wherein--.

Claim 3, line 1, replace "characterized in that" with --wherein--.

4. (Amended) The method according to claim 1, wherein the [or 3, characterized in that said] binder for the calibrator is one member of a specific binding pair, and [that] the other member of the specific binding pair is coupled or conjugated to the calibrator.

5. (Amended) The method according to claim 1, wherein [any of claims 1 to 4, characterized in that] the calibrator and the analyte have the ability to biospecifically bind to Reactant* via equivalent binding sites.

6. (Amended) The method according to [any of claims 1-5, characterized in that] claim 1, wherein

- B3
cent
02
- a. the matrix is a flow matrix exhibiting one or more calibration zones (CZ1, CZ2, CZ3, etc.),
 - b. (i) each calibrator zone comprises calibrator in an amount corresponding to a standard amount of analyte, or
(ii) each calibrator zone contains calibrator binder, the amount of calibrator binder and the amount of calibrator corresponding to a standard amount of analyte, and
 - c. Reactant* is bound to the calibrator by transporting Reactant* through the calibrator zones.

005001-1123500

Claim 7, line 1, replace "characterized in" with --wherein--.

- 005001-1123500
- 03
- 8. (Amended) The method according to claim 6, wherein [or 7, characterized in that]
 - a. two or more of the zones CZ1, CZ2, CZ3, etc. comprising calibrator or binder for the calibrator are located in the same process flow, at least two of the zones corresponding to different standard amounts of analyte, and
 - b. transport of Reactant* for binding to matrix calibrator in the various CZ takes place via this process flow.
 - 9. (Amended) The method according to claim 6, wherein [or 7, characterized in that]
 - a. separate calibrator zones (CZ) are located in separate process flows, and
 - b. transport of Reactant* for binding to calibrator in a calibrator zone CZ occurs via the respective process flow.

10. (Amended) The method according to claim 8, wherein [any of claims 8 or 9, characterized in that]

- a. the process flow and the process flows, respectively, lack a detection zone, and
- b. the complex is formed in a detection zone in a process flow lacking a calibrator zone and being present in a matrix of the same type as the calibrator zones.

11. (Amended) The method according to claim 1, wherein [any of claims 1-5, characterized in that] the matrix is a flow matrix, and [in that,] wherein along one and the same process flow, there are

- a. one or more calibrator zones (CZ), each of which exhibits a matrix calibrator or a matrix calibrator binder,
- b. one or more detection zones (DZ), none of which coincides with any calibrator zone, and in which a Capturer is firmly anchored and is either Reactant I or a biospecific affinity reactant, which directly or indirectly is able to bind Reactant I biospecifically,
- c. an application zone for Reactant*, $A_{R*}Z$, which is located upstream of said CZ and DZ and to which Reactant* may have been predeposited, and
- d. an application zone for sample (A_SZ) which is located
 - i. upstream of or coinciding with a detection zone,
 - ii. downstream or upstream of or coinciding with $A_{R*}Z$ ($A_SZ/A_{R*}Z$), or
 - iii. upstream of, downstream of or coinciding with a calibrator zone,

wherein preferably the zone of application of sample (A_SZ) is located upstream of both detection and calibrator zones, and in that Reactant* is added to $A_{R*}Z$ if Reactant* is not predeposited, or buffer is added to $A_{R*}Z$ if Reactant* is predeposited, and sample is added to A_SZ , optionally premixed with Reactant* if A_SZ and $A_{R*}Z$ [concede] coincide, such that

A³
analyte and Reactant* reach DZ at the same time, or such that analyte reaches DZ before Reactant*.

Claim 12, line 1, replace "characterized in that" with --wherein--.

Claim 13, line 1, replace "or 12, characterized in that" with --, wherein--.

Claim 14, line 1, replace "or 12, characterized in that" with --, wherein--.

15. (Amended) The method according to claim 11, wherein [any of claims 11-14, characterized in that]

A⁴
a. $A_S Z$ is (i) common to $A_{R*} Z$ ($= A_S Z / A_{R*} Z$) or (ii) is located upstream of $A_{R*} Z$, and

b. for alternative (i), sample is premixed with Reactant* before it is added to the common zone $A_S Z / A_{R*} Z$, or sample is being added to the common zone $A_S Z / A_{R*} Z$ containing predeposited Reactant*, and for alternative (ii), sample is added to $A_S Z$, which is located upstream of $A_{R*} Z$ which in turn comprises predeposited Reactant*.

16. (Amended) The method according to claim 6, wherein [any of claims 6-15, characterized in that] Reactant* has particles as analytically detectable group, and/or calibrator or calibrator binder and/or Capturer, if there is a detection zone, is/are anchored to the matrix via particles.

17. (Amended) The method according to claim 1, wherein [any of claims 1-16, characterized in that] the analyte is an antibody directed to Reactant I or to Reactant*, and

B⁴
a. Reactant* is an antibody directed to the analyte and Reactant I is an antigen/hapten, when the analyte is an antibody directed to Reactant I, and

B4
b. Reactant* is an antigen or a hapten and Reactant I is an antibody directed to the analyte, when the analyte is an antibody directed to Reactant*.

18. (Amended) The method according to claim 1, wherein [any of claims 1-16, characterized in that] the analyte is an antigen, and Reactant* and Reactant I are antibodies directed to the analyte.

AH
19. (Amended) The method according to claim 1, wherein [any of claims 1-18, characterized in that] the method is performed as a part of diagnosing allergy or autoimmune disease.

20. (Amended) A device for transforming measured signal values of a complexed, analytically detectable reactant (= Reactant*) to real amounts of analyte in a sample, in connection with performing an analysis method which utilizes biospecific affinity reactions for the determination of the amount of analyte in a sample, to form complexes comprising Reactant* in an amount which is related to the amount of analyte in the sample, [characterized in that] wherein the device [kit] exhibits:

a flow matrix in which there is an area of process flow for the transport of Reactant*, and [that] wherein there is in this area

i. one or more calibrator zones (CZ1, CZ2, etc.) comprising a calibrator, or binder for the calibrator, which is firmly anchored to the matrix, the amounts of calibrator or calibrator binder, respectively, being different for at least two calibrator zones, and the calibrator exhibiting binding sites to which Reactant* is able to bind, when Reactant* is transported through a calibrator zone, and

ii. an application zone for Reactant* ($A_R \cdot Z$) upstream of said one or more calibrator zones.

Claim 21, line 1, replace "characterized in that" with --wherein--.

Claim 22, line 1, replace "or 21, characterized in" with --wherein--

Claim 23, lines 1-2, replace "21 or 22, characterized in that" with --wherein--.

Claim 24, line 1, replace "characterized in that" with --wherein--.

25. (Amended) The device according to [any of claims 23-24, characterized in that] claim 23, wherein the firmly anchored reactant (Capturer) has biospecific affinity to the analyte or to an analyte-related reactant.

26. (Amended) The device according to [any of claims 23-24, characterized in that] claim 23, wherein the firmly anchored reactant (Capturer) has biospecific affinity to a second reactant which in turn has biospecific affinity to the analyte or to an analyte-related reactant.

27. (Amended) The device according to [any of claims 23-26, characterized in that] claim 23, wherein said one or more calibrator zones are located upstream of DZ.

28. (Amended) The device according to [any of claims 23-27, characterized in that] claim 23, wherein $A_S Z$ is located upstream of all calibrator zones.

29. (Amended) A test kit, comprising [characterized in that the kit comprises] a device according to claim 20 [any one of claims 20-28].

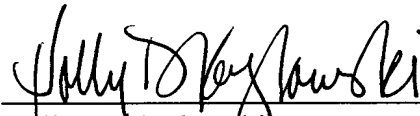
Claim 30, line 1, replace "characterized in that" with --wherein--.

Claim 31, lines 1-2, replace "or 30, characterized in that" with --, wherein--.

REMARKS

By the present Amendment, the claims are amended to omit their multiple dependency and for several matters of form in accordance with customary U.S. patent practice. Since these changes do not involve any introduction of new matter, entry is believed to be in order and is respectfully requested.

Respectfully submitted,



Holly D. Kozlowski
Reg. No. 30,468
Dinsmore & Shohl LLP
1900 Chemed Center
255 East Fifth Street
Cincinnati, Ohio 45202
(513) 977-8568

577860.01